

Appl. No.: 09/939,956

Filed: August 27, 2001

Page 2

Amendments to the Claims:

1. (Original) An adhesive, comprising:
polyethylene;
a copolymer derived from ethylene and at least one monomer selected from the group consisting of acrylic acid, methacrylic acid, methyl acrylate and ethyl acrylate; and
a resin derived from at least one unsaturated C5 hydrocarbon monomer.
2. (Original) The adhesive according to Claim 1, further comprising a hindered phenolic antioxidant.
3. (Original) The adhesive according to Claim 1, wherein the resin is a C5 hydrocarbon resin derived from at least one monomer selected from the group consisting of piperylene, 2-methyl-2-butene, isoprene, cyclopentene, cyclopentadiene, and dimers thereof.
4. (Original) The adhesive according to Claim 3, wherein the C5 hydrocarbon resin is further derived from at least one aromatic monomer.
5. (Original) The adhesive according to Claim 3, wherein the C5 hydrocarbon resin is further derived from α -methyl styrene.
6. (Original) The adhesive according to Claim 1, wherein the C5 hydrocarbon resin is derived from aliphatic monomers.
7. (Original) The adhesive according to Claim 1, wherein the polyethylene includes a low density polyethylene.
8. (Original) The adhesive according to Claim 1, wherein the copolymer is an ethylene-acrylic acid copolymer.

Appl. No.: 09/939,956

Filed: August 27, 2001

Page 3

9. (Currently amended) ~~The adhesive according to Claim 1, wherein the An~~
adhesive, comprising:
polyethylene present in an amount from about 80 to about 95 percent by weight, the;
a copolymer is derived from ethylene and at least one monomer selected from the group
consisting of acrylic acid, methacrylic acid, methyl acrylate and ethyl acrylate, said copolymer
present in an amount from about 3 to about 5 percent by weight; and
the a resin derived from at least one unsaturated C5 hydrocarbon monomer, is present in
an amount from about 0.2 to about 15 percent by weight; and
a hindered phenolic antioxidant is present in an amount from 0 to about 1.0 percent by
weight.

10. (Currently amended) The adhesive according to Claim 12, wherein the
polyethylene is present in an amount from about 90 to about 95 percent by weight, the
copolymer is present in an amount from about 3 to about 5 percent by weight, the resin is present
in an amount from about 1 to about 5 percent by weight, and an hindered phenolic antioxidant is
present in an amount from 0.2 to about 0.8 percent by weight.

11. (Original) An adhesive, comprising:
low density polyethylene;
an ethylene-acrylic acid copolymer;
a C5 hydrocarbon resin derived from at least one monomer selected from the group
consisting of piperylene, 2-methyl-2-butene, isoprene, cyclopentene, cyclopentadiene, and
dimers thereof; and
a hindered phenolic antioxidant.

12. (Original) The adhesive according to Claim 11, wherein the C5 hydrocarbon
resin is further derived from α -methyl styrene.

Appl. No.: 09/939,956

Filed: August 27, 2001

Page 4

13. (Currently amended) A cable, comprising:
a metal conductor;
a polymeric jacket surrounding said metal conductor; and
an adhesive bonding said ~~outer-metal~~ conductor and said polymer jacket, said adhesive comprising polyethylene; a copolymer derived from ethylene and at least one monomer selected from the group consisting of acrylic acid, methacrylic acid, methyl acrylate and ethyl acrylate; and a resin derived from at least one unsaturated C5 hydrocarbon monomer.

14. (Original) The cable according to Claim 13, wherein said adhesive further comprises a hindered phenolic antioxidant.

15. (Original) The cable according to Claim 13, wherein the resin in said adhesive is derived from at least one monomer selected from the group consisting of piperylene, 2-methyl-2-butene, isoprene, cyclopentene, cyclopentadiene, and dimers thereof.

16. (Original) The cable according to Claim 15, wherein the resin in said adhesive is further derived from at least one aromatic monomer.

17. (Original) The cable according to Claim 15, wherein the resin in said adhesive is further derived from α -methyl styrene.

18. (Original) The cable according to Claim 13, wherein the resin in said adhesive is derived from aliphatic monomers.

19. (Original) The cable according to Claim 13, wherein the polyethylene in said adhesive includes a low density polyethylene.

Appl. No.: 09/939,956
Filed: August 27, 2001
Page 5

20. (Original) The cable according to Claim 13, wherein the copolymer in said adhesive is an ethylene-acrylic acid copolymer.

21. (Currently amended) ~~The cable according to Claim 13, wherein the polyethylene is A cable, comprising:~~

a metal conductor;

a polymeric jacket surrounding said metal conductor; and

an adhesive bonding said metal conductor and said polymer jacket, said adhesive comprising

polyethylene present in an amount from about 80 to about 95 percent by weight, based on the total weight of the adhesive;

a copolymer derived from ethylene and at least one monomer selected from the group consisting of acrylic acid, methacrylic acid, methyl acrylate and ethyl acrylate the copolymer is said polymer being present in an amount from about 3 to about 5 percent by weight, based on the total weight of the adhesive;

a resin derived from at least one unsaturated C5 hydrocarbon monomer the resin is present in an amount from about 0.2 to about 15 percent by weight, based on the total weight of the adhesive; and

a hindered phenolic antioxidant is present in an amount from 0 to about 1.0 percent by weight, based on the total weight of the adhesive.

22. (Currently amended) The cable according to Claim ~~13~~21, wherein the polyethylene is present in an amount from about 90 to about 95 percent by weight, the copolymer is present in an amount from about 3 to about 5 percent by weight, the resin is present in an amount from about 1 to about 5 percent by weight, and an hindered phenolic antioxidant is present in an amount from 0.2 to about 0.8 percent by weight.

Appl. No.: 09/939,956
Filed: August 27, 2001
Page 6

23. (Original) The cable according to Claim 13, wherein the metal conductor is formed of copper or a copper alloy.

24. (Original) The cable according to Claim 13, wherein the polymeric jacket is formed of polyethylene.

25. (Original) The cable according to Claim 13, wherein the adhesive forms an adhesive bond between said outer conductor and said polymeric jacket having a 72 hour bond peel strength of at least about 5 lb_f/in.

26. (Original) The cable according to Claim 13, further comprising an inner conductor and a dielectric layer surrounding said inner conductor, wherein said metal conductor is an outer conductor and surrounds said dielectric layer.

27. (Original) A coaxial cable, comprising:
an inner conductor;
a dielectric layer surrounding said inner conductor;
an outer conductor formed of copper or a copper alloy surrounding said dielectric layer;
a polymeric jacket formed of polyethylene surrounding said outer conductor; and
an adhesive bonding said outer conductor and said polymer jacket, said adhesive comprising about 80 to about 95 percent by weight polyethylene; about 3 to about 5 percent by weight ethylene-acrylic acid copolymer, about 0.2 to about 15 percent by weight of a resin derived from at least one unsaturated C5 hydrocarbon monomer, and from 0 to about 1.0 percent by weight of a hindered phenolic antioxidant.

28. (Original) The coaxial cable according to Claim 27, wherein the adhesive forms an adhesive bond between said outer conductor and said polymeric jacket having a 72 hour bond peel strength of at least about 5 lb_f/in.

Appl. No.: 09/939,956
Filed: August 27, 2001
Page 7

29. (Previously Presented) The adhesive according to claim 1, wherein the polyethylene is low density polyethylene; the copolymer derived from ethylene and at least one monomer selected from the group consisting of acrylic acid, methacrylic acid, methyl acrylate and ethyl acrylate is an ethylene-acrylic acid copolymer; and the resin derived from at least one unsaturated C5 hydrocarbon monomer is a C5 hydrocarbon resin derived from at least one monomer selected from the group consisting of piperylene, 2-methyl-2-butene, isoprene, cyclopentene, cyclopentadiene, and dimers thereof.

30. (Previously Presented) The adhesive according to claim 29, wherein the C5 hydrocarbon resin is further derived from at least one aromatic monomer.

31. (Currently amended) ~~A cable, comprising:~~
~~— a metal conductor;~~
~~— a polymeric jacket surrounding said metal conductor; and~~
~~— an adhesive bonding said outer conductor and said polymer jacket~~ The cable as claimed in claim 13, said adhesive comprising low density polyethylene; an ethylene-acrylic acid copolymer; and a C5 hydrocarbon resin derived from at least one monomer selected from the group consisting of piperylene, 2-methyl-2-butene, isoprene, cyclopentene, cyclopentadiene, and dimers thereof.

32. (Previously Presented) The cable according to claim 31, wherein the adhesive further comprises a hindered phenolic antioxidant.

33. (Previously Presented) The cable according to claim 31, wherein the C5 hydrocarbon resin is further derived from at least one aromatic monomer.

Appl. No.: 09/939,956
Filed: August 27, 2001
Page 8

34. (New) A cable, comprising:
a metal conductor;
a polymeric jacket surrounding said metal conductor; and
an adhesive bonding said metal conductor and said polymer jacket, said adhesive comprising polyethylene; a copolymer derived from ethylene and at least one monomer selected from the group consisting of acrylic acid, methacrylic acid, methyl acrylate and ethyl acrylate; and a resin derived from at least one unsaturated C5 hydrocarbon monomer, wherein said adhesive is capable of leaving said metal conductor substantially free of adhesive residue when said polymeric jacket is removed.

35. (New) An adhesive, comprising:
polyethylene;
a copolymer derived from ethylene and at least one monomer selected from the group consisting of acrylic acid, methacrylic acid, methyl acrylate and ethyl acrylate; and
a resin derived from at least one unsaturated C5 hydrocarbon monomer,
said adhesive being substantially free of organosilane compounds.